

[illegible]

```

LL          IIIIII          SSSSSSSS
LL          IIIIII          SSSSSSSS
LL          II             SS
LL          II             SS
LL          II             SS
LL          II             SS
LL          II             SSSSSS
LL          II             SSSSSS
LL          II             SS
LL          II             SS
LL          II             SS
LL          II             SS
LLLLLLLLLLLL IIIIII          SSSSSSSS
LLLLLLLLLLLL IIIIII          SSSSSSSS

```

(1)	56	DECLARATIONS
(1)	95	CONDITION TABLES
(1)	137	TM SETUP, TM CLEANUP
(1)	200	CONDITION SUBROUTINES - SETUP AND CLEANUP
(1)	277	FORM_CONDS
(1)	370	VERIFY
(1)	495	VFY_CLEANUP



```
0000 1 .TITLE SATSSS82 SATS SYSTEM SERVICE TESTS $SETPRT (SUCC S.C.)
0000 2 .IDENT 'V04-000'
0000 3
0000 4
0000 5 *****
0000 6
0000 7 *
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0000 25 *
0000 26 *****
0000 27
0000 28
0000 29 ++
0000 30 FACILITY: SYSTST (SATS SYSTEM SERVICE TESTS)
0000 31
0000 32 ABSTRACT:
0000 33
0000 34 THIS MODULE CONTAINS SUBROUTINES WHICH, WHEN LINKED
0000 35 WITH SUCCOMMON.OBJ, FORM TEST MODULE SATSSS82 TO TEST SUCCESSFUL
0000 36 OPERATION OF THE $SETPRT SYSTEM SERVICE. THE SERVICE IS INVOKED
0000 37 UNDER VARIOUS INPUT CONDITIONS WITH VARYING INPUT PARAMETERS. ONLY
0000 38 SUCCESSFUL STATUS CODES ARE EXPECTED IN THIS TEST MODULE. CORRECT
0000 39 OPERATION OF THE SERVICE FOR EACH OF ITS ISSUANCES IS VERIFIED BY
0000 40 CHECKING FOR AN SSS NORMAL STATUS CODE, EXPECTED RETURN ARGUMENTS
0000 41 AND EXPECTED FUNCTIONALITY PERFORMED.
0000 42
0000 43 ENVIRONMENT: USER MODE IMAGE; NEEDS CMKRNL PRIVILEGE,
0000 44 DYNAMICALLY ACQUIRES OTHER PRIVILEGES, AS NEEDED.
0000 45
0000 46 AUTHOR: THOMAS L. CAFARELLA, CREATION DATE: JUL, 1977
0000 47
0000 48 MODIFIED BY:
0000 49
0000 50 V03-001 KDM0002 Kathleen D. Morse 28-Jun-1982
0000 51 Added $PRTDEF and $SSDEF.
0000 52
0000 53 01 -
0000 54 --
```

SATSSS82  
V04-000

SATS SYSTEM SERVICE TESTS \$SETPR1 (SUCC 16-SEP-1984 01:05:39 VAX/VMS Macro V04-00 Page 2  
DECLARATIONS 5-SEP-1984 04:33:54 [UETPSY.SRC]SATSSS82.MAR;1 (1)

```
0000 56 .SBTTL DECLARATIONS
0000 57 :
0000 58 : INCLUDE FILES:
0000 59 :
0000 60 $PRVDEF ; PRIVILEGE BIT DEFINITIONS
0000 61 $PHDDEF ; PROCESS HEADER OFFSETS
0000 62 $PSLDEF ; PROCESSOR STATUS LONGWORD DEFINITIONS
0000 63 $PRTDEF ; PROTECTION FIELD DEFINITIONS
0000 64 $SSDEF ; SYSTEM STATUS CODE DEFINITIONS
0000 65 :
0000 66 : MACROS:
0000 67 :
0000 68 :
0000 69 : EQUATED SYMBOLS:
0000 70 :
0000 71 :
0000 72 : OWN STORAGE:
0000 73 :
```

SATSSS82  
V04-000

SATS SYSTEM SERVICE TESTS \$SETPRT (SUCC 16-SEP-1984 01:05:39 VAX/VMS Macro V04-00 Page 3  
DECLARATIONS 5-SEP-1984 04:33:54 [UETPSY.SRC]SATSSS82.MAR;1 (1)

```
00000000 75 .PSECT RODATA,RD,NOWRT,NOEXE, LONG
0000 76 TEST_MOD_NAME:: STRING C,<SATSSS82> : TEST MODULE NAME
0009 77 TEST_MOD_NAME_D: STRING I,<SATSSS82> : TEST MODULE NAME DESCRIPTOR
0019 78 MSG1_INP_CTL: STRING I,< SSSPT!4ZW: CONDITIONS:>
0039 79 : FAO CTL STRING FOR MSG1 IN SUCCOMMON.MAR
0039 80 MSG3_ERR_CTL:: STRING I,< *SSSPT!4ZW: !AS>
0051 81 : FAO CTL STRING FOR MSG3 IN SUCCOMMON.MAR
04 08 05 02 0051 82 RWMODES: .BYTE PRTSC_KW, - : READ/WRITE
0055 83 PRTSC_EW, - : .. PROT CODE
0055 84 PRTSC_SW, - : .... FOR EACH
0055 85 PRTSC_UW : ..... ACCESS MODE
```



SATSSS82  
V04-000

	00000000	87	.PSECT	RWDATA,RD,WRT,NOEXE, LONG	
00000008	0000	88	PRIVMASK:	.BLKQ	1
0000000C	0008	89	PROT:	.BLKL	1
00000014	000C	90	RETADR:	.BLKQ	1
0000001C	0014	91	INADR:	.BLKQ	1
0000001D	001C	92	PRVPRT:	.BLKB	1
00000025	001D	93	INADR2:	.BLKQ	1

: ADDR OF PRIVILEGE MASK (IN PHD)  
: PROT ARGUMENT FOR SETPRT  
: RETADR ARGUMENT FOR SETPRT  
: INADR ARGUMENT FOR SETPRT  
: PRVPRT ARGUMENT FOR SETPRT  
: INADR ARGUMENT FOR NON-SUBJECT SETPRT

```
0025 95
0025 96 :
0025 97 :
0025 98 :
0025 99 :
0025 100
0025 101
0025 102
00000000 0045 103
00000001 0049 104
004D 105 :
004D 106 :
004D 107 :
004D 108 :
004D 109 :
004D 110 :
004D 111 :
00000000 007C 112
00000001 0080 113
00000002 0084 114
00000003 0088 115
008C 116 :
008C 117 :
008C 118 :
008C 119 :
008C 120 :
008C 121 :
008C 122 :
03 02 01 00 0116 123
011A 124 :
011A 125 :
011A 126 :
011A 127 :
011A 128 :
011A 129 :
011A 130 :
03 02 01 00 01A3 131
01A7 132 :
01A7 133 :
01A8 134
00000000 135
```

.SBTTL CONDITION TABLES

\*\*\*\*\* CONDITION TABLES FOR SETPRT SYSTEM SERVICE \*\*\*\*\*

COND 1,NOTARG,<REGION>,-  
<PROGRAM>,-  
<CONTROL>,-

.LONG 0 : PROGRAM  
.LONG 1 : CONTROL

COND 2,LONG,<ACMODE>,-  
<KERNEL>,-  
<EXEC>,-  
<SUPER>,-  
<USER>,-

.LONG PSL\$C\_KERNEL  
.LONG PSL\$C\_EXEC  
.LONG PSL\$C\_SUPER  
.LONG PSL\$C\_USER

COND 3,NOTARG,<HIGH-ORDER 2 BITS OF PROT CODE>,-  
<NA, RESERVED, KW, OR KR>,-  
<UW, EW, ERKW, OR ER>,-  
<SW, SREW, SRKW, OR SR>,-  
<URSW, UREW, URKW, OR UR>,-

.BYTE 0,1,2,3

COND 4,NOTARG,<LOW-ORDER 2 BITS OF PROT CODE>,-  
<NA, UW, SW, OR URSW>,-  
<RESERVED, EW, SREW, OR UREW>,-  
<KW, ERKW, SRKW, OR URKW>,-  
<KR, ER, SR, OR UR>,-

.BYTE 0,1,2,3

COND 5,NULL

.PSECT SATSSSB2,RD,WRT,EXE



```
0000 137 .SBTTL TM_SETUP, TM_CLEANUP
0000 138 :++
0000 139 : FUNCTIONAL DESCRIPTION:
0000 140 :
0000 141 : TM SETUP AND TM CLEANUP ARE CALLED TO PERFORM
0000 142 : REQUIRED HOUSEKEEPING AT THE BEGINNING AND END, RESPECTIVELY, OF
0000 143 : TEST MODULE EXECUTION.
0000 144 :
0000 145 : CALLING SEQUENCE:
0000 146 :
0000 147 : BSBW TM_SETUP BSBW TM_CLEANUP
0000 148 :
0000 149 : INPUT PARAMETERS:
0000 150 :
0000 151 : NONE
0000 152 :
0000 153 : IMPLICIT INPUTS:
0000 154 :
0000 155 : NONE
0000 156 :
0000 157 : OUTPUT PARAMETERS:
0000 158 :
0000 159 : NONE
0000 160 :
0000 161 : IMPLICIT OUTPUTS:
0000 162 :
0000 163 : TM_SETUP: COND TABLE INDEX REGISTERS (R2,3,4,5,6) CLEARED;
0000 164 : ALL PRIVILEGES ACQUIRED.
0000 165 :
0000 166 : COMPLETION CODES:
0000 167 :
0000 168 : EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
0000 169 :
0000 170 : SIDE EFFECTS:
0000 171 :
0000 172 : SS CHECK AND ERR EXIT MACROS CAUSE PREMATURE EXIT
0000 173 : (VIA RSB) IF ERROR ENCOUNTERED.
0000 174 :
0000 175 :--
```

```
00000000'EF 00000000'EF FFF3'
03 00 00000000'8F F0
00000000'EF

52 D4 0000 180 TM_SETUP::
53 D4 0002 181 CLRL R2 ; INITIALIZE
54 D4 0004 181 CLRL R3 ; .. CONDITION
55 D4 0006 182 CLRL R4 ; .... TABLE
56 D4 0008 183 CLRL R5 ; ..... INDEX
57 D4 000A 184 CLRL R6 ; ..... REGISTERS
58 30 000A 185 BSBW MOD MSG PRINT ; PRINT TEST MODULE BEGIN MSG
59 00000000'9F 00000000'8F DE 000D 186 MOVAL TEST MOD_SUCC,TMD ADDR ; ASSUME END MSG WILL SHOW SUCCESS
00000000'EF 69 DE 0018 187 INSV #SUCCESS,#0,#3,MOD_MSG_CODE ; ADJUST STATUS CODE FOR SUCCESS
0025 188
0048 189 MODE TO,5$,KRNL ; KERNEL MODE TO ACCESS PHD
004F 190 MOVL @CTL$GL PHD,R9 ; GET PROCESS HEADER ADDRESS
0056 191 MOVAL PHD$Q_PRIVMSK(R9),PRIVMASK ; GET PRIV MASK ADDRESS
0057 192 MODE FROM,5$ ; BACK TO USER MODE
PRIV ADD,ALL ; GET ALL PRIVILEGES
```

SATSSS82  
V04-000

SATS SYSTEM SERVICE TESTS \$SETPRN (SUCC 16-SEP-1984 01:05:39 VAX/VMS Macro V04-00 Page 7  
TM\_SETUP, TM\_CLEANUP 5-SEP-1984 04:33:54 [UETPSY.SRC]SATSSS82.MAR;1 (1)

	0077	193	\$SETPRN S TEST_MOD_NAME_D	:	SET PROCESS NAME
	0084	194	SS_CHECK NORMAL	:	CHECK STATUS CODE RETURNED FROM SETPRN
05	00AE	195	RSB	:	RETURN TO MAIN ROUTINE
	00AF	196	TM_CLEANUP::		
FF4E' 30	00AF	197	BSBW MOD_MSG_PRINT	:	PRINT TEST MODULE END MSG
05	00B2	198	RSB	:	RETURN TO MAIN ROUTINE

```
00B3 200 .SBTTL CONDITION SUBROUTINES - SETUP AND CLEANUP
00B3 201 :++
00B3 202 : FUNCTIONAL DESCRIPTION:
00B3 203 :
00B3 204 : COND1 AND COND1 CLEANUP ARE SUBROUTINES WHICH ARE EXECUTED
00B3 205 : BEFORE AND AFTER THE VERIFY SUBROUTINE, RESPECTIVELY, WHENEVER A NEW
00B3 206 : CONDITION X VALUE IS SELECTED (SEE FUNCTIONAL DESCRIPTION OF SUCCOMMON
00B3 207 : ROUTINE IN SUCCOMMON.MAR). ANY SETUP FUNCTION PARTICULAR TO THE
00B3 208 : CONDITION X TABLE IS INCLUDED IN THE COND1 SUBROUTINE AND CLEANED
00B3 209 : UP, IF NECESSARY, IN THE COND1 CLEANUP SUBROUTINE. THIS INCLUDES,
00B3 210 : ESPECIALLY, CODE TO DETECT CONFLICTS AMONG CURRENT ENTRIES IN TWO
00B3 211 : OR MORE CONDITION TABLES. IF A CONFLICT IS DETECTED, A NON-ZERO
00B3 212 : VALUE IS STORED INTO CONFLICT, WHICH CAUSES THE CALLING ROUTINE
00B3 213 : (SUCCOMMON) TO SKIP THE CURRENT ENTRY IN THE CONDITION X TABLE.
00B3 214 :
00B3 215 : CALLING SEQUENCE:
00B3 216 :
00B3 217 : BSBW COND1 BSBW COND1_CLEANUP
00B3 218 : WHERE X = 1,2,3,4,5
00B3 219 :
00B3 220 : INPUT PARAMETERS:
00B3 221 :
00B3 222 : CONFLICT = 0
00B3 223 :
00B3 224 : IMPLICIT INPUTS:
00B3 225 :
00B3 226 : R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
00B3 227 : FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
00B3 228 :
00B3 229 : OUTPUT PARAMETERS:
00B3 230 :
00B3 231 : CONFLICT SET TO NON-ZERO IF COND TABLE CONFLICT DETECTED.
00B3 232 :
00B3 233 : IMPLICIT OUTPUTS:
00B3 234 :
00B3 235 : R2,3,4,5,6 PRESERVED
00B3 236 :
00B3 237 : COMPLETION CODES:
00B3 238 :
00B3 239 : NONE
00B3 240 :
00B3 241 : SIDE EFFECTS:
00B3 242 :
00B3 243 : NONE
00B3 244 :
00B3 245 : --
00B3 246 :
00B3 247 :
00B3 248 :
00B3 249 : COND1::
00B3 250 : RSB : RETURN TO MAIN ROUTINE
00B3 251 : COND1_CLEANUP::
00B3 252 : RSB : RETURN TO MAIN ROUTINE
00B3 253 : COND2::
00B3 254 : RSB : RETURN TO MAIN ROUTINE
00B3 255 : COND2_CLEANUP::
00B3 256 : RSB : RETURN TO MAIN ROUTINE
```

05 00B3 250 RSB : RETURN TO MAIN ROUTINE

05 00B4 252 RSB : RETURN TO MAIN ROUTINE

05 00B5 254 RSB : RETURN TO MAIN ROUTINE

05 00B6 256 RSB : RETURN TO MAIN ROUTINE



```
00000116'EF44 05 00B7 257 COND3:: ; RETURN TO MAIN ROUTINE
15 12 00B7 258 RSB ; RETURN TO MAIN ROUTINE
01 000001A3'EF45 05 00B8 259 COND3_CLEANUP:: ; RETURN TO MAIN ROUTINE
08 05 00B8 260 RSB ; RETURN TO MAIN ROUTINE
00000000'EF 00000000'EF 95 00B9 261 COND4:: ; FIRST CONDITION 3 ELEMENT ?
12 00C0 262 TSTB COND3_E[R4] ; NO -- ALL IS OK
91 00C2 263 BNEQ COND4X ; 2ND CONDITION 4 ELEMENT ?
12 00CA 264 CMPB COND4_E[R5],#1 ; NO -- ALL IS OK
00CC 265 BNEQ COND4X ; YES -- THIS PROT CODE RESERVED
90 00CC 266 MOVB ONES,CONFLICT ; INDICATE CONFLICT
05 00D7 267 COND4X: RSB ; RETURN TO MAIN ROUTINE
05 00D8 268 COND4_CLEANUP:: ; RETURN TO MAIN ROUTINE
05 00D8 269 RSB ; RETURN TO MAIN ROUTINE
05 00D9 270 COND5:: ; RETURN TO MAIN ROUTINE
05 00D9 271 RSB ; RETURN TO MAIN ROUTINE
05 00DA 272 COND5_CLEANUP:: ; RETURN TO MAIN ROUTINE
05 00DA 273 RSB ; RETURN TO MAIN ROUTINE
05 00DA 274 RSB ; RETURN TO MAIN ROUTINE
05 00DA 275 RSB ; RETURN TO MAIN ROUTINE
```

```
00DB 277 .SBTTL FORM_CONDS
00DB 278 :++
00DB 279 FUNCTIONAL DESCRIPTION:
00DB 280
00DB 281 FORM_CONDS FORMATS AND PRINTS INFORMATION ABOUT
00DB 282 THE CURRENT ELEMENT IN EACH OF THE CONDITION TABLES.
00DB 283
00DB 284 CALLING SEQUENCE:
00DB 285
00DB 286 BSBW FORM_CONDS
00DB 287
00DB 288 INPUT PARAMETERS:
00DB 289
00DB 290 NONE
00DB 291
00DB 292 IMPLICIT INPUTS:
00DB 293
00DB 294 R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
00DB 295 FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
00DB 296 FOR X = 1,2,3,4,5 :
00DB 297 CONDX_T - TITLE TEXT FOR CONDX TABLE
00DB 298 CONDX_TAB - ELEMENT TEXT FOR CONDX TABLE
00DB 299 CONDX_C - CONTEXT OF THE CONDX TABLE
00DB 300 CONDX_E - DATA ELEMENTS OF THE CONDX TABLE
00DB 301
00DB 302 OUTPUT PARAMETERS:
00DB 303
00DB 304 NONE
00DB 305
00DB 306 IMPLICIT OUTPUTS:
00DB 307
00DB 308 NONE
00DB 309
00DB 310 COMPLETION CODES:
00DB 311
00DB 312 NONE
00DB 313
00DB 314 SIDE EFFECTS:
00DB 315
00DB 316 NONE
00DB 317
00DB 318 :--
00DB 319
00DB 320
00DB 321
00DB 322 FORM_CONDS::
00DB 323 $FAO_S MSG1_INP_CTL,FAO_LEN,FAO_DESC,TESTNUM
00FA 324 :
00FA 325 BSBW OUTPUT_MSG : FORMAT CONDITIONS HEADER MSG
14 FF03' 30 00FA 325 : AND PRINT IT
00 91 00FD 326 :
03 12 0100 327 CMPB #COND1_C,#NULL : IS CONDITION 1 NULL ?
00CB 31 0102 328 BNEQU 10$ : NO -- CONTINUE
0105 329 BRW FORM_CONDSX : YES -- SUBROUTINE IS FINISHED
00000000'EF 00000025'EF DE 0105 330 10$: MOVAL COND1_T,MSG_A : SAVE ADDRESS OF CONDITION 1 TITLE FOR FAO
00000000'EF 0000002D'EF42 D0 0110 331 MOVL COND1_TAB[R2],MSG_B : SAVE ADDR OF COND 1 CURR TEXT ELT FOR FAO
00000000'EF 00 90 011C 332 MOVNB #COND1_C,MSG_TXT : SAVE CONDITION 1 CONTEXT FOR FAO
0123 333 MOV_VAL COND1_C,COND1_E[R2],MSG_DATA1 : GIVE COND 1 DATA VALUE TO FAO
```

```

      FEDA' 30 0123 334      BSBW WRITE_MSG2      : FORMAT AND WRITE CONDITION 1 MSG
14 04 91 0126 335      CMPB #COND2_C,#NULL      : IS CONDITION 2 NULL ?
      03 12 0129 336      BNEQU 20$      : NO -- CONTINUE
      00A2 31 012B 337      BRW FORM_CONDSX      : YES -- SUBROUTINE IS FINISHED
      012E 338 20$:
00000000'EF 0000004D'EF DE 012E 339      MOVAL COND2_T,MSG_A      : SAVE ADDRESS OF CONDITION 2 TITLE FOR FAO
00000000'EF 00000055'EF43 D0 0139 340      MOVL COND2_TAB[R3],MSG_B      : SAVE ADDR OF COND 2 CURR TEXT ELT FOR FAO
      00000000'EF 04 90 0145 341      MOVB #COND2_C,MSG_TXT      : SAVE CONDITION 2 CONTEXT FOR FAO
      014C 342      MOV VAL COND2_C,COND2_E[R3],MSG_DATA1 : GIVE COND 2 DATA VALUE TO FAO
      FEA5' 30 0158 343      BSBW WRITE_MSG2      : FORMAT AND WRITE CONDITION 2 MSG
14 00 91 015B 344      CMPB #COND3_C,#NULL      : IS CONDITION 3 NULL ?
      03 12 015E 345      BNEQU 30$      : NO -- CONTINUE
      006D 31 0160 346      BRW FORM_CONDSX      : YES -- SUBROUTINE IS FINISHED
      0163 347 30$:
00000000'EF 0000008C'EF DE 0163 348      MOVAL COND3_T,MSG_A      : SAVE ADDRESS OF CONDITION 3 TITLE FOR FAO
00000000'EF 000000AC'EF44 D0 016E 349      MOVL COND3_TAB[R4],MSG_B      : SAVE ADDR OF COND 3 CURR TEXT ELT FOR FAO
      00000000'EF 00 90 017A 350      MOVB #COND3_C,MSG_TXT      : SAVE CONDITION 3 CONTEXT FOR FAO
      0181 351      MOV VAL COND3_C,COND3_E[R4],MSG_DATA1 : GIVE COND 3 DATA VALUE TO FAO
      FE7C' 30 0181 352      BSBW WRITE_MSG2      : FORMAT AND WRITE CONDITION 3 MSG
14 00 91 0184 353      CMPB #COND4_C,#NULL      : IS CONDITION 4 NULL ?
      47 13 0187 354      BEQLU FORM_CONDSX      : YES -- SUBROUTINE IS FINISHED
00000000'EF 0000011A'EF DE 0189 355      MOVAL COND4_T,MSG_A      : SAVE ADDRESS OF CONDITION 4 TITLE FOR FAO
00000000'EF 00000139'EF45 D0 0194 356      MOVL COND4_TAB[R5],MSG_B      : SAVE ADDR OF COND 4 CURR TEXT ELT FOR FAO
      00000000'EF 00 90 01A0 357      MOVB #COND4_C,MSG_TXT      : SAVE CONDITION 4 CONTEXT FOR FAO
      01A7 358      MOV VAL COND4_C,COND4_E[R5],MSG_DATA1 : GIVE COND 4 DATA VALUE TO FAO
      FE56' 30 01A7 359      BSBW WRITE_MSG2      : FORMAT AND WRITE CONDITION 4 MSG
14 14 91 01AA 360      CMPB #COND5_C,#NULL      : IS CONDITION 5 NULL ?
      21 13 01AD 361      BEQLU FORM_CONDSX      : YES -- SUBROUTINE IS FINISHED
00000000'EF 000001A7'EF DE 01AF 362      MOVAL COND5_T,MSG_A      : SAVE ADDRESS OF CONDITION 5 TITLE FOR FAO
00000000'EF 000001A7'EF46 D0 01BA 363      MOVL COND5_TAB[R6],MSG_B      : SAVE ADDR OF COND 5 CURR TEXT ELT FOR FAO
      00000000'EF 14 90 01C6 364      MOVB #COND5_C,MSG_TXT      : SAVE CONDITION 5 CONTEXT FOR FAO
      01CD 365      MOV VAL COND5_C,COND5_E[R6],MSG_DATA1 : GIVE COND 5 DATA VALUE TO FAO
      FE30' 30 01CD 366      BSBW WRITE_MSG2      : FORMAT AND WRITE CONDITION 5 MSG
      01D0 367 FORM_CONDSX:
05 01D0 368      RSB      : RETURN TO CALLER
```



```
01D1 370 .SBTTL VERIFY
01D1 371 :++
01D1 372 : FUNCTIONAL DESCRIPTION:
01D1 373 :
01D1 374 :     VERIFY IS CALLED ONCE FOR EACH COMBINATION OF CONDITION
01D1 375 :     TABLE VALUES (AS DETERMINED BY THE INDEX REGISTERS R2,3,4,5,6 FOR
01D1 376 :     COND TABLES 1,2,3,4,5, RESPECTIVELY). VERIFY ESTABLISHES THE CONDITIONS
01D1 377 :     SPECIFIED BY THE COND TABLES AND ISSUES THE SUBJECT SYSTEM SERVICE
01D1 378 :     ($SETPRT). THEN, THE SUCCESSFUL OPERATION OF THE SERVICE IS VERIFIED
01D1 379 :     BY EXAMINING THE STATUS CODE RETURNED, THE VALUES FOR RETURN ARGUMENTS
01D1 380 :     AND THE FUNCTIONALITY PERFORMED. THE EXAMINATIONS TAKE THE FORM OF
01D1 381 :     COMPARISONS AGAINST EXPECTED VALUES. ANY FAILING COMPARISON CAUSES AN
01D1 382 :     ERR_EXIT MACRO TO BE EXECUTED (EITHER DIRECTLY, OR INDIRECTLY,
01D1 383 :     THROUGH THE SS_CHECK MACRO); ERR_EXIT SETS EFLAG TO NON-ZERO,
01D1 384 :     PRINTS ERROR MESSAGES AND CAUSES AN IMMEDIATE RSB TO CALLER.
01D1 385 :     WHEN ERR_EXIT IS EXECUTED, FURTHER CALLS TO VERIFY ARE SUPPRESSED,
01D1 386 :     AND, AFTER EXECUTING CLEANUP SUBROUTINES, THE IMAGE EXITS.
01D1 387 :
01D1 388 : CALLING SEQUENCE:
01D1 389 :
01D1 390 :     BSBW VERIFY
01D1 391 :
01D1 392 : INPUT PARAMETERS:
01D1 393 :
01D1 394 :     NONE
01D1 395 :
01D1 396 : IMPLICIT INPUTS:
01D1 397 :
01D1 398 :     R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
01D1 399 :     FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
01D1 400 :     FOR X = 1,2,3,4,5 :
01D1 401 :         CONDX_E - ADDRESS OF TABLE OF DATA VALUES FOR CONDX
01D1 402 :         TABLE. IF THE CONTEXT OF TABLE X IS A SYSTEM SERVICE
01D1 403 :         ARGUMENT, THE ARGUMENT NAME MAY BE USED AS A SYNONYM
01D1 404 :         FOR CONDX_E.
01D1 405 :
01D1 406 : OUTPUT PARAMETERS:
01D1 407 :
01D1 408 :     NONE
01D1 409 :
01D1 410 : IMPLICIT OUTPUTS:
01D1 411 :
01D1 412 :     VERIFY HAS NO OUTPUT. SINCE ITS PURPOSE IS TO TEST FOR ERRORS,
01D1 413 :     IT MERELY RETURNS TO CALLER NORMALLY AFTER THE TESTS, PROVIDING
01D1 414 :     ALL WERE SUCCESSFUL; IF AN ERROR IS DISCOVERED, RETURN IS VIA
01D1 415 :     AN ERR_EXIT OR SS_CHECK MACRO, BOTH OF WHICH DOCUMENT DETECTED
01D1 416 :     ERRORS.
01D1 417 :
01D1 418 : COMPLETION CODES:
01D1 419 :
01D1 420 :     EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
01D1 421 :
01D1 422 : SIDE EFFECTS:
01D1 423 :
01D1 424 :     SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
01D1 425 :     (VIA RSB) IF ERROR ENCOUNTERED.
01D1 426 :
```

```
01D1 427 :--
01D1 428
01D1 429
01D1 430
01D1 431 VERIFY::
00000000'EF 95 01D1 432 TSTB CFLAG : SHOULD CONDITIONS BE PRINTED ?
03 13 01D7 433 BEQL 5$ : NO -- CONTINUE
FEFF 30 01D9 434 BSBW FORM_CONDS : YES -- FMT & PRINT ALL CONDS FOR THIS T.C.
00000014'EF 7C 01DC 435 5$: CLRQ INADR : CLEAR TO INDICATE EXPREG NOT ISSUED YET
01E2 436 MODE TO,7$,KRNL : LET ACMODE ARGUMENT CONTROL MODE
0205 437 $EXPREG,S PAGECNT=#25, RETADR=INADR, ACMODE=ACMODE[R3], -
0205 438 REGION=COND1_E[R2] : GRAB A HUNK OF SPACE
0222 439 MODE FROM,7$ : BACK TO USER MODE
0223 440 SS CHECK NORMAL : CHECK NORMAL COMPLETION
00000008'EF FF 8F 98 024D 441 CVTBL #-1,PROT : TRY TO CONFUSE SETPRT WITH HI-ORDER BITS
00000008'EF 000001A3'EF45 90 0255 442 MOVB COND4_E[R5],PROT : GET 2 LOW-ORDER BITS OF PROT CODE
59 00000116'EF44 90 0261 443 MOVB COND3_E[R4],R9 : PICK UP 2 HI-ORDER BITS
00000008'EF 02 02 59 F0 0269 444 INSV R9,#2,#2,PROT : ... AND FORM A COMPLETE CODE
0272 445 MODE TO,10$,KRNL : LET ACMODE ARGUMENT CONTROL MODE
0295 446
0295 447 : ***** SYSTEM SERVICE CALL WHICH IS THE SUBJECT OF THIS TEST CASE *****
0295 448
0295 449
0295 450 $SETPRT,S INADR,RETADR,ACMODE[R3],PROT,PRVPRT
028B 451 MODE FROM,10$ : BACK TO USER MODE
01 50 D1 028C 452 CMPL R0,#SS$,NORMAL : CODE RECEIVED = CODE EXPECTED ?
03 12 028F 453 BNEQU 20$ : NO -- GO PROCESS ERROR
005D 31 02C1 454 BRW 30$ : YES -- CONTINUE
00000000'EF 01 D0 02C4 455 20$: MOVL #SS$,NORMAL,EXPV : LOAD UP EXPECTED AND
00000000'EF 50 D0 02CB 456 MOVL R0,RECV : ... RECEIVED VALUES, THEN EXIT
02D2 457 ERR_EXIT LONG,<INCORRECT STATUS CODE RETURNED FROM SETPRT>
0321 458 30$: CMPL INADR,RETADR : DID SETPRT BEGIN AT RIGHT PLACE ?
0000000C'EF 00000014'EF D1 0321 460 BNEQU 35$ : NO -- ERROR
0F 12 032C 461 CMPL INADR+4,RETADR+4 : DID IT DO ALL OF THE PAGES ?
00000010'EF 00000018'EF D1 032E 462 BNEQU 35$ : NO -- THAT'S NO GOOD EITHER
02 12 0339 463 BRB 40$ : YES -- ALL IS OK, SO FAR
6E 11 033B 464 35$: MOVQ INADR,EXPV : LOAD UP PAIR OF EXPECTED
00000000'EF 00000014'EF 7D 033D 465 MOVQ RETADR,RECV : ... AND RECEIVED VALUES, THEN EXIT
00000000'EF 0000000C'EF 7D 0348 466 ERR_EXIT QUAD,<SETPRT DID NOT FUNCTION>, -
0353 467 <ON REQUESTED RANGE OF PAGES>
0353 468
03AB 469 40$: CMPB PRVPRT,RWMODES[R3] : WAS PREV PROT R/W ?
00000051'EF43 0000001C'EF 91 03AB 471 BEQLU 60$ : YES -- DO MORE CHECKING
65 13 03B7 472 MOVB RWMODES[R3],EXPV : NO -- LOAD UP EXPECTED AND
00000000'EF 00000051'EF43 90 03B9 473 MOVB PRVPRT,RECV : ... RECEIVED VALUES, THEN EXIT
00000000'EF 0000001C'EF 90 03C5 474 ERR_EXIT BYTE,<INCORRECT PRVPRT VALUE RETURNED BY SETPRT>
03D0 475 60$: CMPB PROT,#PRT$C_NA : IS PROT CODE NO-ACCESS ?
00 00000008'EF 91 041E 477 BNEQU 70$ : NO -- CONTINUE
07 12 0425 478 MOVB #PRT$C_KR,PROT : YES -- NA IS CHANGED TO KR
00000008'EF 03 90 0427 479 70$: MOVL INADR,INADR2 : REQUEST A SETPRT ON 1 PAGE ...
0000001D'EF 00000014'EF D0 042E 481 MOVL INADR,INADR2+4 : ... TO VERIFY PROT CODE
00000021'EF 00000014'EF D0 0439 482 MODE TO,65$,KRNL : GET KERNEL MODE
0444 483
```

			0467	484	\$SETPRT_S INADR2,RETADR,ACMODE[R3],PROT,PRVPRT
			048D	485	MODE -FROM,65\$
			048E	486	: BACK TO USER MODE
00000008'EF	0000001C'EF	91	0488	487	: CHECK FOR NORMAL RETURN
	5C	13	04C3	488	: DID SETPRT RETURN SAME PROT VALUE ?
00000000'EF	00000008'EF	90	04C5	489	: YES -- OK
00000000'EF	0000001C'EF	90	04D0	490	: NO -- LOAD UP EXPECTED AND
			04DB	491	: RECEIVED VALUES, THEN EXIT
			0521	492	ERR_EXIT BYTE,<PROT CODE NOT PRESERVED BY SETPRT>
		05	0521	493	VERIFYX:
					RSB
					: RETURN TO CALLER



```
0522 495 .SBTTL VFY_CLEANUP
0522 496 :++
0522 497 :FUNCTIONAL DESCRIPTION:
0522 498 :
0522 499 :VFY_CLEANUP EXECUTES SYSTEM SERVICES TO UNDO THE
0522 500 :EFFECT OF THOSE ISSUED IN THE VERIFY SUBROUTINE. VFY_CLEANUP MUST
0522 501 :ASSUME THAT VERIFY MAY NOT HAVE EXECUTED IN ITS ENTIRETY (IF AN
0522 502 :ERROR IS FOUND). ALSO, VFY_CLEANUP MAY ISSUE SS_CHECK OR ERR_EXIT
0522 503 :ONLY AFTER PERFORMING ALL OF ITS CLEANUP OPERATIONS; THIS IS REQUIRED
0522 504 :IN THE EVENT THAT VFY_CLEANUP IS CALLED DURING ERROR PROCESSING,
0522 505 :WHEN PERFORMING THE REQUIRED CLEANUP IS MORE IMPORTANT THAN
0522 506 :POSSIBLY DISCOVERING A SECOND ERROR.
0522 507 :
0522 508 :CALLING SEQUENCE:
0522 509 :
0522 510 :BSBW VFY_CLEANUP
0522 511 :
0522 512 :INPUT PARAMETERS:
0522 513 :
0522 514 :NONE
0522 515 :
0522 516 :IMPLICIT INPUTS:
0522 517 :
0522 518 :R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
0522 519 :FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
0522 520 :FOR X = 1,2,3,4,5 :
0522 521 :COND_X E - ADDRESS OF TABLE OF DATA VALUES FOR CONDX
0522 522 :TABLE. IF THE CONTEXT OF TABLE X IS A SYSTEM SERVICE
0522 523 :ARGUMENT, THE ARGUMENT NAME MAY BE USED AS A SYNONYM
0522 524 :FOR CONDX_E.
0522 525 :
0522 526 :OUTPUT PARAMETERS:
0522 527 :
0522 528 :NONE
0522 529 :
0522 530 :IMPLICIT OUTPUTS:
0522 531 :
0522 532 :NONE
0522 533 :
0522 534 :COMPLETION CODES:
0522 535 :
0522 536 :EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
0522 537 :
0522 538 :SIDE EFFECTS:
0522 539 :
0522 540 :SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
0522 541 :(VIA RSB) IF ERROR ENCOUNTERED.
0522 542 :
0522 543 :--
0522 544 :
0522 545 :
0522 546 :
0522 547 VFY_CLEANUP::
0522 548 TSTL INADR : DID EXPREG GET ISSUED SUCCESSFULLY ?
0522 549 BNEQ 10$ : YES -- CONTINUE
0522 550 BRW VFY_CLEANUPX : NO -- JUST EXIT
0522 551 10$:
```

00000014'EF D5  
03 12  
0064 31

SATSSS82  
V04-000

J 10  
SATS SYSTEM SERVICE TESTS \$SETPR (SUCC 16-SEP-1984 01:05:39 VAX/VMS Macro V04-00 Page 16  
VFY\_CLEANUP 5-SEP-1984 04:33:54 [UETPSY.SRC]SATSSS82.MAR;1 (1)

0520	552	MODE	TO,20\$,KRNL	:	NEED KERNEL TO SPECIFY MODE
0550	553	\$DELTVA_S	[NADR,ACMODE[R3]	:	GET RID OF EXPANDED REGION
0566	554	MODE	-FROM,20\$	:	BACK TO USER MODE
0567	555	SS	CHECK NORMAL	:	CHECK RETURN FROM DELTVA
0591	556	VFY_CLEANUPX:			
05 0591	557	RSB		:	RETURN TO CALLER
0592	558	.END			

SSSS	= 000004E5	R	04	EXPV	*****	X	04
SSSCHARS	= 00000021			FAO_DESC	*****	X	04
SSSCHARS1	= 00000013			FAO_LEN	*****	X	04
SSSCHARS2	= 0000001B			FORM_CONDS	000000DB	RG	04
SSSCHARS3	= 00000017			FORM_CONDSX	000001D0	R	04
SSSCHARS4	= 00000011			INADR	00000014	R	03
SSSCHARS5	= 00000000			INADR2	0000001D	R	03
SSSCOND_A	= 00000003			LONG	= 00000004	G	
SSSTRINGS	= 00000001			MOD_MSG_CODE	*****	X	04
SSSTRINGS2	= 00000005			MOD_MSG_PRINT	*****	X	04
\$ST1	= 00000000			MSGT_INP_CTL	00000019	R	02
\$ST2	= 00000004			MSG3_ERR_CTL	00000039	RG	02
ACMODE	0000007C	R	03	MSG_A	*****	X	04
BYTE	= 00000001	G		MSG_B	*****	X	04
CFLAG	*****	X	04	MSG_CTXT	*****	X	04
CHMRTN	*****	X	04	MSG_DATA1	*****	X	04
CHM CONT	*****	X	04	NOTARG	= 00000000	G	
COMP_SC	*****	X	04	NULL	= 00000014	G	
COND1	000000B3	RG	04	ONES	*****	X	04
COND1_C	= 00000000			OUTPUT_MSG	*****	X	04
COND1_CLEANUP	000000B4	RG	04	PCV	*****	X	04
COND1_E	00000045	R	03	PHDSQ_PRIVMSK	= 00000000		
COND1_H	0000002C	RG	03	PRIVMASK	00000000	R	03
COND1_T	00000025	R	03	PRIV_ARGS	= 00000002		
COND1_TAB	0000002D	R	03	PROCESS_ERR	*****	X	04
COND2	000000B5	RG	04	PROT	00000008	R	03
COND2_C	= 00000004			PRTSC_EW	= 00000005		
COND2_CLEANUP	000000B6	RG	04	PRTSC_KR	= 00000003		
COND2_E	0000007C	R	03	PRTSC_KW	= 00000002		
COND2_H	00000054	RG	03	PRTSC_NA	= 00000000		
COND2_T	0000004D	R	03	PRTSC_SW	= 00000008		
COND2_TAB	00000055	R	03	PRTSC_UW	= 00000004		
COND3	000000B7	RG	04	PRVPRT	0000001C	R	03
COND3_C	= 00000000			PSLSC_EXEC	= 00000001		
COND3_CLEANUP	000000B8	RG	04	PSLSC_KERNEL	= 00000000		
COND3_E	00000116	R	03	PSLSC_SUPER	= 00000002		
COND3_H	000000AB	RG	03	PSLSC_USER	= 00000003		
COND3_T	0000008C	R	03	QUAD	= 00000008	G	
COND3_TAB	000000AC	R	03	RCV	*****	X	04
COND4	000000B9	RG	04	REST_REGS	*****	X	04
COND4X	000000D7	R	04	RETADR	0000000C	R	03
COND4_C	= 00000000			RWMODES	00000051	R	02
COND4_CLEANUP	000000D8	RG	04	SAVE_REGS	*****	X	04
COND4_E	000001A3	R	03	SS\$ NORMAL	= 00000001		
COND4_H	00000138	RG	03	SUCCESS	*****	X	04
COND4_T	0000011A	R	03	SYSSCMKRN	*****	GX	04
COND4_TAB	00000139	R	03	SYSSDELTVA	*****	GX	04
COND5	000000D9	RG	04	SYSSXPREG	*****	GX	04
COND5_C	= 00000014			SYSSFAO	*****	X	04
COND5_CLEANUP	000000DA	RG	04	SYSSSETPRN	*****	GX	04
COND5_H	000001A7	RG	03	SYSSSETPRT	*****	GX	04
COND5_T	000001A7	R	03	SYSSSETPRV	*****	GX	04
COND5_TAB	000001A7	R	03	TESTNUM	*****	X	04
CONFLICT	*****	X	04	TEST_MOD_NAME	00000000	RG	02
CTL\$GL_PHD	*****	X	04	TEST_MOD_NAME_D	00000009	R	02
DESC	= 00000010	G		TEST_MOD_SUCC	*****	X	04
EFLAG	*****	X	04	TMD_ADDR	*****	X	04



SATSSS82  
Symbol table

SATS SYSTEM SERVICE TESTS \$SETPR1 L 10 (SUCC 16-SEP-1984 01:05:39 VAX/VMS Macro V04-00  
5-SEP-1984 04:33:54 [UETPSY.SRC]SATSSS82.MAR;1

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TM_CLEANUP	000000AF	RG	04
TM_SETUP	00000000	RG	04
VERIFY	000001D1	RG	04
VERIFYX	00000521	R	04
VFY_CLEANUP	00000522	RG	04
VFY_CLEANUPX	00000591	R	04
WORD	= 00000002	G	
WRITE_MSG2	*****	X	04

+-----+  
! Psect synopsis !  
+-----+

PSECT name	Allocation	PSECT No.	Attributes
. ABS .	00000000 ( 0.)	00 ( 0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$ABSS	00000000 ( 0.)	01 ( 1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
RODATA	00000055 ( 85.)	02 ( 2.)	NOPIC USR CON REL LCL NOSHR NOEXE RD NOWRT NOVEC LONG
RWDATA	000001A8 ( 424.)	03 ( 3.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC LONG
SATSSS82	00000592 ( 1426.)	04 ( 4.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC BYTE

+-----+  
! Performance indicators !  
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.06	00:00:00.56
Command processing	107	00:00:00.74	00:00:01.92
Pass 1	329	00:00:10.97	00:00:16.85
Symbol table sort	0	00:00:01.25	00:00:01.41
Pass 2	122	00:00:02.41	00:00:03.12
Symbol table output	15	00:00:00.10	00:00:00.13
Psect synopsis output	2	00:00:00.03	00:00:00.03
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	606	00:00:15.57	00:00:24.03

The working set limit was 1350 pages.  
59058 bytes (116 pages) of virtual memory were used to buffer the intermediate code.  
There were 50 pages of symbol table space allocated to hold 767 non-local and 47 local symbols.  
558 source lines were read in Pass 1, producing 24 object records in Pass 2.  
39 pages of virtual memory were used to define 30 macros.

+-----+  
! Macro library statistics !  
+-----+

Macro library name	Macros defined
_\$255\$DUA28:[SHRLIB]UETP.MLB;1	9
_\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	1
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	17
TOTALS (all libraries)	27

1113 GETS were required to define 27 macros.

There were no errors, warnings or information messages.

SATSSS82  
VAX-11 Macro Run Statistics

SATS SYSTEM SERVICE TESTS \$SETPRT (SUCC 16-SEP-1984 01:05:39 VAX/VMS Macro V04-00  
5-SEP-1984 04:33:54 [UETPSY.SRC]SATSSS82.MAR;1

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MACRO/LIS=LIS\$:SATSSS82/OBJ=OBJ\$:SATSSS82 MSRC\$:SATSSS82/UPDATE=(ENH\$:SATSSS82)+EXECML\$/LIB+SHRLIB\$:UETP/LIB



0425 AH-BT13A-SE  
VAX/VMS V4.0

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